

DESCRIPTION

The Stemple Creek watershed begins just east of Petaluma in Sonoma County, and empties into Bodega Bay via the Estero de San Antonio in Marin County. Water uses within this watershed include municipal, agricultural, and industrial water supply; recreational, fishing, and navigational uses; and aquatic habitat uses.

Most of the watershed is under agricultural production, mainly sheep and cattle grazing and dairy production. There is also a large, active municipal landfill located within the watershed. Identified NPS pollutants in this watershed include nutrients, sediment, and low dissolved oxygen, reportedly attributable to pasture lands and manure lagoons. Other pollutants of concern resulting from agricultural land uses in the watershed include ammonia and bacteria.



Estero de San Antonio

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For more photos, visit:
www.californiacoastline.org.

REASON FOR CCA IDENTIFICATION

Estero de San Antonio is a 2002 303(d)-listed **impaired waterbody that flows into a Marine Protected Area** (the Gulf of the Farallones National Marine Sanctuary), and was also one of the original CCAs identified in 1995 as an **impaired waterbody that flows into an estuary**.

POLLUTED RUNOFF CONDITIONS

	Top 5 Runoff Pollutants of Concern					Efforts to Address Pollutants (See next page)
	<u>2002 303(d)-Listed Pollutants</u> TMDL Priority (& Proposed Completion if available)	<u>Other Pollutants</u> ¹				
Selected Coastal Zone Waterbodies	<u>Nutrients</u>	<u>Sediment</u>	<u>Ammonia</u>	<u>Low Dissolved Oxygen</u>	<u>Bacteria</u>	
Stemple Creek/Estero de San Antonio ▲	▲ Medium	▲ Low	▲	▲	▲	
Bodega Bay ■					■	
Unnamed Creeks •						
Potential Sources of Pollutants in Coastal Waterbodies						
Agriculture	▲	▲	▲	▲	▲ ■	a-e
➤ Crop Production	▲					c
➤ Grazing	▲	▲	▲	▲	▲ ■	d, e
➤ Intensive Animal Feeding	▲					
➤ Agricultural Storm Runoff	▲				▲ ■	
Urban Areas						d, e
➤ Land Development	▲	▲				
Hydromodification	▲					d, e
➤ Channelization	▲					
Wetlands & Riparian Areas						d, e
➤ Removal of Riparian Vegetation	▲					

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Potential Sources of Pollutants, continued	Nutrients	Sediment	Ammonia	Low Dissolved Oxygen	Bacteria	Efforts to Address Pollutants
➤ Streambank Modification	▲					d, e
➤ Drainage/Filling of Wetlands	▲					
Erosion/Siltation		▲				d, e
Channel Erosion	▲					
Unspecified Nonpoint Source		▲				
Natural Sources	▲					

¹ Information on ammonia, low dissolved oxygen, and bacteria as Pollutants of Concern is from Tom Moore, Calif. Dept. of Fish and Game.

MAJOR EFFORTS TO IMPLEMENT NPS MANAGEMENT MEASURES

a)	Dairy Conservation Program			http://www.sonomamarinrcds.org/district-mc/
	Marin Resource Conservation District	Nancy Scolari	(415) 663-1170	marinrcd@svn.net nancy@marinrcd.org
	➤ Dairy conservation plans, educational guides, monitoring and assessment.			
b)	California Dairy Quality Assurance Program			http://www.westernuniteddairymen.com/
	Western United Dairymen		(209) 527-6453	info@westernuniteddairymen.com
	➤ Partner in this innovative environmental stewardship program which helps California dairy producers understand and meet federal, state, regional and local requirements relating to manure, water quality and nutrient management.			
c)	Animal Resource Management Committee			http://www.sonomacountyfarmbureau.com/
	Sonoma County Farm Bureau	Ronda Eisenhower	(707) 544-5575	Ronda@sonomacountyfarmbureau.com
	➤ Helps dairy, horse, poultry, and livestock producers address animal waste management issues, and encourages environmental compliance and protection of our environment. Meets with government and regulatory agencies.			
d)	Stemple Creek Watershed Efforts			http://www.sonomamarinrcds.org/district-ssc/
	Southern Sonoma County Resource Conservation District	Leandra Swent	(707) 794-1242	sscrd@sonomamarinrcds.org
	➤ Aimed at reducing sedimentation, nutrients, and water temperatures, by fencing out creeks/gullies, native plantings, streambank repair work, and making dairy facility improvements. Through PL 566 -Watershed program.			
e)	Walker Creek and Stemple Creek Watershed Project			http://www.sonomamarinrcds.org/district-mc/
	Marin Resource Conservation District	Nancy Scolari	(415) 663-1170	marinrcd@svn.net nancy@marinrcd.org
	➤ Goals are control of soil erosion; education and outreach; protection and improvement of water quality; conservation of rangeland; cropland and forest; support of agricultural economy; riparian habitat restoration.			

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REGULATORY/PLANNING JURISDICTIONS

➤ Marin County Stormwater Pollution Prevention Program	http://mcstoppp.org/	Liz Lewis	(415) 499-7226	lizlewis@co.marin.ca.us
➤ Marin County, Community Development Dept.	http://www.co.marin.ca.us/depts/CD/main/index.cfm	Thomas Lai	(415) 499-6292	tlai@co.marin.ca.us
➤ Calif. Coastal Commission, Water Quality Unit	http://www.coastal.ca.gov/nps/npsndx.html	Vanessa Metz	(707) 445-7873	vmetz@coastal.ca.gov
➤ North Coast Regional Water Quality Control Board, NPS Complaint Response	http://www.waterboards.ca.gov/northcoast/	Diana Henrioulle-Henry	(707) 576-2350	dhenrioulle-henry@waterboards.ca.gov
➤ State Water Resources Control Board	http://www.waterboards.ca.gov/	Heidi Hall	(916) 323-2871	hhall@waterboards.ca.gov
➤ California Coastal Conservancy	http://www.coastalconservancy.ca.gov/	Karyn Gear	(510) 286-4171	kgear@scc.ca.gov
➤ Calif. Dept. of Fish & Game, Marine Region	http://www.dfg.ca.gov/	Vicki Frey	(707) 445-7830	vfrey@dfg.ca.gov
➤ Caltrans, Stormwater Management	http://www.dot.ca.gov/hq/env/stormwater/	Alex Arevalo	(707) 445-6600	Alex_Arevalo@dot.ca.gov
➤ NOAA, Gulf of the Farallones National Marine Sanctuary	http://farallones.noaa.gov/bv	Maria Brown	(415) 561-6622	maria.brown@noaa.gov